

Remarks

By the foregoing Amendment, claim 1 is amended. No new matter is added by this Amendment. Entry of the Amendment, and favorable consideration thereof, is earnestly requested.

The specification has been amended to correct a clerical error.

The Office Action rejects independent claim 1 (and dependent claim 2) under 35 U.S.C. §102(b) as anticipated by Fujii, U.S. Patent Application No. 2001/0008607. The Examiner maintains that the roller bearing (25) (the swash plate's radial bearing) and the thrust bearing (24) (which accomodates the swash plate's axial load) collectively read on the claimed "bearing assembly". Accordingly, claim 1 has been amended to clarify that the bearing assembly comprises a plurality of bearings, where each of those bearings accomodates both the axial and radial load. Fujii discloses no such arrangement, and thus, Applicant respectfully requests that this rejection be withdrawn in the light of the foregoing amendment.

The Office Action rejects independent claim 25 under 35 U.S.C. §103 as obvious over Fujii at the time of the invention in view of Frase, U.S. Patent No. 4,526,485. Applicant respectfully requests reconsideration of this rejection for the reasons set forth below.

As a preliminary matter, Applicant notes neither Fujii nor Frase anticipates independent claim 1, as amended, or independent claim 25 because all of the elements in these claims are not shown in either of these references. Claim 1 recites a bearing assembly that couples inner and outer swash plate portions where each bearing of the assembly “is adapted to accommodate both the radial load and the axial load of the swash plate.” Similarly, claim 25 recites “an angular contact bearing by which said outer swash plate portion is coupled to said inner swash plate portion.”

In contrast, Fujii discloses a compressor that uses a standard roller bearing (25) as the swash plate’s radial bearing, and a separate thrust bearing (24) for accommodating the axial load. This is precisely the type of radial bearing + thrust bearing solution that the present invention aimed to improve upon by employing the claimed single-bearing design. See Paragraph 0006 of the present application. Frase, of course, simply discloses an angular contact bearing, and makes no mention of a compressor or its parts.

The Office Action indicates that the claimed invention would be obvious over Fujii—which does not teach or suggest the use of bearings that are individually adapted to accommodate both the axial and radial loads of the swash plate (or, more specifically, an angular contact bearing)—in light of Fujii, which simply discloses an angular contact bearing. The Office Action points to a number of advantages of the Frase bearing that are cited in the Frase reference as constituting a suggestion to one skilled in the art to substitute the bearing of Frase for the bearings employed in the

compressor of Fujii. However, Applicant respectfully submits that these are advantages that Frase identifies as benefits associated with using a sealed roller bearing. See Frase, Col.1, Ins 9-18. (This is because the invention of Frase is directed to a way of sealing roller bearings using elastic gaskets. See Frase, Abstract; Col.1, Ins. 5-7.) Applicant respectfully submits that Frase offers no suggestion that advantages are likely to be obtained by employing an angular contact bearing in a swash plate compressor, and in fact, does not even provide any general discussion of the desirability of using an angular contact bearing in lieu separate radial and thrust bearings.

Applicant respectfully notes that it is not appropriate to use very different references to simply piece together the claimed invention, using the Applicant's disclosure as a roadmap. As the Court of Appeals for the Federal Circuit has explained:

[I]n making the assessment of differences between the prior art and the claimed subject matter, section 103 specifically requires consideration of the claimed invention "as a whole." Inventions typically are new combinations of existing principles or features... The "as a whole" instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might successfully break an invention into its component parts, then find a prior art reference corresponding to each component. This line of reasoning would import hindsight into the obviousness determination by using the invention as a roadmap to find its prior art components.

Princeton Biochemicals, Inc. v. Beckman Coulter, Inc., 411 F.3d 1332, 1337 (Fed. Cir. 2005) (citations omitted) (emphasis added). The United States Supreme Court has recently affirmed the importance of guarding against using the current application as a map for piecing together the claimed invention, explaining:

a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.

KSR Int'l Co. v. Teleflex, Inc., 127 S.Ct. 1727, 1741 (2007). Applicant submits that no such reason exists in this case.

The present invention aims to minimize the number of bearings used in coupling the inner and outer parts of a compressor swash plate. Fujii has no such objective, but rather, is principally concerned with achieving the simultaneous objectives of smooth rotation of the swash plate, reduced axial vibration, and reduced mechanical loss by using a radial bearing with small frictional resistance, and it teaches to do this by specifically using a support member in conjunction with a roller bearing and a separate thrust bearing. See Fujii, Abstract.

Frase, which has nothing to do with compressors, is simply a patent about a sealed bearing. Applicant respectfully submits that the Office Action has not identified a reason why one skilled in the art of compressors would allegedly look to a reference such as Frase and find it obvious to replace the radial + thrust bearing design employed by Fujii with the angular contact bearing disclosed in Frase. Replacing the compressor swash plate radial + thrust bearing design disclosed in Fujii—which is a well known and commonly used design—with a single bearing that can accommodate both the radial and axial loads of the swash plate was the inventive concept of Applicant, and this

would not have been an obvious modification to those skilled in the art of swash plate compressors simply because angular contact bearings exist. In order for the presently claimed invention to be deemed unpatentable, there must be some *reason why* it would have allegedly been obvious to incorporate such a bearing into a swash plate compressor. Applicant respectfully submits that the Office Action does not established any such reason, and thus, has failed to establish a *prima facie* case of obviousness based on the cited references.

Applicant notes that every invention clearly has some benefits, and it is tempting to simply cite the benefits produced by the applicant's own invention as the *reason why* it would have allegedly been obvious. However, there must be some identifiable reason why it would have allegedly been obvious for one skilled in the art to combine elements in the prior art in the claimed way for the purpose of achieving those benefits. Care must be taken not to piece together the claimed invention from various different sources, and then simply cite a beneficial result produced by the Applicant's invention as an *ex post* reason why this combination of elements would be obvious. *KSR*, 127 S.Ct. at 1742 ("A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. ").

Applicant submits that, in light of the amendment herein, generic claim 1 is allowable, and thus, withdrawn claims 4-7, 9, and 11-12 are also allowable.

It is respectfully submitted that claims 1-12 and 25 are in order for allowance, and early notice to that effect is respectfully requested.

Respectfully submitted,

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/Wesley W. Whitmyer, Jr./
Wesley W. Whitmyer, Jr., Registration No. 33,558
David W. Aldrich, Registration No. 51,159
Attorneys for Applicants
ST.ONGE STEWARD JOHNSTON & REENS LLC
986 Bedford Street
Stamford, CT 06905-5619
Tel. 203 324-6155